

VII. *Descriptions of new species of Australian Diurnal
Lepidoptera.* By W. H. MISKIN.

[Read 2nd August, 1876.]

THE following notes, which I beg to lay before the Entomological Society, are descriptive of some insects recently added to my collection, that will, I believe, prove new to science:—

Family PAPILIONIDÆ, Leach.

Sub-family PAPILIONINÆ, Swainson.

Genus PAPILIO, Linn.

Papilio Egipius, n. sp.

Male.—UPPERSIDE: black. *Primaries*: with a few short dashes of white, bordering on the costa near apex. *Secondaries*: with a broad sulphurish band embracing point of discal cell, on which side the edge of band is straight, and extending outwardly to within a short distance of outer margin, on which side it is crenulated between the nervules, touching anterior margin but not extending abdominally beyond third median branch; immediately above anal angle a single red lunule; outer margin of both wings crenated in white.

UNDERSIDE: deep black. *Primaries*: with apical dashes almost obsolete. *Secondaries*: with a very small red spot at apical angle, same at anal angle surmounted by largish lunule of same colour; a large red lunule between second and third medians, a very small and imperfect one between first and second, and one barely perceptible between discoidal and first median, all near the margin. Antennæ, head, thorax, and abdomen, all black above and below; the white specks between head and thorax very indistinct.

Female.—UPPERSIDE. *Primaries*: with the whole of the basal region, the hinder and outer margins, and costa, all black; the veins widely black, and the spaces between with wide bands of black, excepting those between the second and third medians, and third median and submedian, which are quite white; within the cell are also

several stripes of black, the rest of wing clouded white. *Secondaries*: black, with central spot of white nearly touching abdominal margin, digitate on outer side; a marginal row of red lunules, with a very large one above anal angle.

UNDERSIDE: exactly as on upper, primaries rather whiter. Head, thorax, &c., as in male.

Expanse, ♂, 3" 7"—3" 9"; ♀, 3" 4".

Hab.—Rockingham Bay, Queensland (Kuntzler).

Coll. ♂ and ♀, Queensland Museum; ♂, W. H. Miskin.

This is a very distinct and well-defined species, which has never before, I believe, been met with. It belongs to the *Erectheus* group, from the typical species of which it is at once distinguishable by its much smaller size, and particularly by the absence in the male of the subapical band in primaries, and of the blue markings and most of the red markings on underside of secondaries; and in the female by the much blacker appearance, the absence of the broad disco-cellular band, by the black bands between the nervures in primaries, the absence of the blue markings, and by the limited area of white in the secondaries.

The specimens from which my descriptions are taken were contained in a collection of insects made by Mr. H. Kuntzler at Rockingham Bay (Northern Queensland), during the past season, and was the only new species amongst the *Rhopalocera* therein, although many others of much interest were included. A representative of each sex has gone into our Museum collection; the other two specimens, both males, passed to my own.

Family NYMPHALIDÆ, Swainson.

Sub-family SATYRINÆ, Bates.

Genus XENICA, Westwood.

Xenica Kershawi, n. sp.

UPPERSIDE: deep brown, with markings all of rufous. *Primaries*: with two short, transverse bands within the cell, one about the middle, the other and larger one at extremity, another towards the apex, touching the costa; an ocellus near apex ringed with rufous, with small white centre; above the ocellus three small spots, reaching the costa, below and touching the ocellus a large round spot; three small, faint, submarginal spots from apex downwards; three large spots, the centre one of which is the largest, from near posterior angle upwards; a large spot immedi-

ately under and nearly touching central discal band; outer border fringed between the nervules with pale rufous, posterior margin edged with rufous. *Secondaries*: with large anal ocellus, ringed with rufous, white centre; a narrow, submarginal streak from base to anal angle, a shorter parallel one not reaching ocellus; a spot near base; a short, oblique band within cell; a curved, irregular band from costa nearly to ocellus, avoiding the cell; a round spot below apical angle, between this and ocellus two small, oblong patches; near the ocellus two submarginal lunules; two small specks between ocellus and anal angle, surmounted by a larger one; fringed between nervules (which are conspicuously terminated in black) with pale rufous, base of both wings and abdominal margin of secondaries thickly clothed with long, pale-brown hairs; thorax black; abdomen dark brown.

UNDERSIDE. Primaries: very much as above, except that the ground is lighter; the rufous patches somewhat paler, the three towards hinder angle being connected together; above the ocellus the small spots are whitish; a silvery submarginal band from apex more than half-way down the wing. *Secondaries*: with ground colour reddish-brown, all the lighter markings being somewhat similarly disposed as on upperside, but silvery, and more extended; the streaks parallel with abdominal border are four in number, one of which is marginal; the marks near outer margin here form a broken but almost connected border from apical to anal angles; basal and sub-basal patch, the latter extending from costa into and nearly across the cell; and ocellus on costal border near apex, similar to but rather smaller than anal one, which is here the same as on upperside; thorax and abdomen light brown.

Secondaries somewhat angulated.

Expanse, ♂, 1" 7^{'''}; ♀, 1" 8^{'''}.

Hab.—Victoria (Kershaw).

Coll. W. H. Miskin.

This species is closely allied to *X. Lathoniella* (Westwood), but is abundantly distinct, both by its larger size, the angulated form of the secondaries, and particularly by the very different arrangement of the silver markings on the underside. I am indebted for my specimens to Mr. W. Kershaw, of Melbourne (Victoria), who observes, "This species is found upon or at the foot of high mountains." So far as my experience goes, I believe the species to be confined to the colony of Victoria.

Genus EPINEPHILE, Hübner.

Epinephile Rawnsleyi, n. sp.

UPPERSIDE: dark uniform brown. *Primaries*: with a black ocellus, with small, pale blue centre, near apex; a larger one of same description between second and third median branches, near margin. *Secondaries*: with an ocellus similar to those on primaries, but widely encircled with ring of orange, near anal angle; a smaller one, also with orange ring, but without the central speck of blue at apex.

UNDERSIDE: as above, but with faint indication of discal band within the cell of primaries; a faint, whitish ring round both ocelli, and two transverse lines of same character, one submarginal, the other inside of the ocelli. *Secondaries*: with the transverse lines much more decided, the apical ocellus with white centre.

Thorax and abdomen almost black, above and below.

Expanse 2" 2".

Hab.—Maroochey River, near Brisbane (Rawnsley).

Coll. Miskin.

My specimen I believe to be unique. It was collected and presented to me by my friend the late H. C. Rawnsley, Esq., to whose memory I propose to dedicate it.

Genus HETERONYMPIA, Wallengr.

Heteronympha Digglei, n. sp.

UPPERSIDE: bright reddish-fulvous, with black markings. *Primaries*: with short broad transverse band at termination of cell just touching costa, a short transverse band within, and about centre of cell, connected with base of wing by a longitudinal band which gradually narrows to a point at base of wing; apex with a moderately wide margin extending along costa nearly to the principal discal band, and about a third of way down outer margin; midway down outer margin, an irregularly-shaped patch extending some distance towards disc and inclining upwardly so as to partially encircle, apically, a small simple ocellus, the patch being connected with apical margin by a fine submarginal line, and continued along margin nearly to hinder angle, which latter is narrowly bordered; a square patch on hinder margin near angle; a wide band on hinder margin nearly to base; a square patch between second and third submedians, nearly touching discal band. *Secondaries*: with outer margin, from apex, broadly bor-

dered to a little beyond the discocellular vein, thence to anal angle a submarginal line; between first and second submedians, near to cell, a small patch, and between this and outer margin (which it touches) a larger patch; near anal angle a well-defined ocellus, with ring of paler fulvous; between this and submarginal line, a short inner line from first to third submedians; abdominal margin pale brown.

UNDERSIDE. *Primaries*: as on upperside, but paler; apical dark markings more extended, and clouded brown, instead of black; ocellus nearly obsolete; discal longitudinal band indistinct. *Secondaries*: clouded brown; a broad band from centre of costa to cell, darker, with lilac hue; region margining median vein towards base and abdominal margin, same colour; two indistinct ocelli near apex, and one towards anal angle.

Expanse 2' 3".

Hab.—Brisbane (Queensland).

Coll. Miskin.

A very scarce species, resembling in its habits *H. mirifica*, in company with which very rare insect it has been occasionally taken; it seems to be confined to the Brisbane district, and is only found in dark spots in dense scrubs, where there is an undergrowth of low ferns.

It has been suggested to me that this insect may prove to be the male of *mirifica*, the possibility of the correctness of which surmise I am not prepared entirely to deny, particularly as the various specimens collected have somewhat the appearance of partaking of the character of opposite sexes respectively; but the captures of either species are too limited in number to permit of the arriving at any positive determinations of the point upon this ground. The very different appearance and markings of the two insects, however, will, I think, justify the assumption of specific distinction; and I have therefore much pleasure in naming our insect in honour of my friend Mr. S. Diggles, who was, I believe, the first to discover it.

Family LYCÆNIDÆ, Stephens.

Genus HYPOCHRYSORS, Felder.

Hypochrysops Epicurus, n. sp.

Male.—UPPERSIDE: uniform shining brown, with violet reflections; base of both wings rather darker. *Primaries*:

with base of costa bronzy. *Secondaries*: somewhat angulated; abdominal margin paler.

UNDERSIDE: pale shining-brown, with linear markings of brassy green. *Primaries*: with the green markings generally bordered rather indistinctly with pale orange, and often accompanied by black specks; with an outer submarginal row of green markings, inside of which is a corresponding row of black spots, largest towards hinder angle, between these pale orange; another row of green markings from costa not quite across wing, bordered outwardly with pale orange; a subcostal double longitudinal line of green, from base nearly to transverse band, with a short transverse double line branching from it, at end of cell; two spots of black beneath, and close to median vein, before its second and third branches. *Secondaries*: with the green markings in transverse rows of short contiguous lines, generally double, filled in with rich orange; an outer marginal line of green to anal angle, inside of which a narrow band of orange; a basal speck of green, crowned with orange; a sub-basal row of two single lines, bordered inwardly with orange; a discal row of four, double except one near costa, reaching from costa to abdominal margin; an outer row of four, double except upper one, not reaching costa; beyond, two short single lines; a large black spot near anal angle, with a small black speck on each side. Fringe not developed.

Female.—UPPERSIDE: uniform shining brown, violet-blue at base of both wings. *Primaries*: with base of costa light brown. *Secondaries*: more rounded than in male; with the blue extending over the discal region; a small patch of pale orange at branch of median; the submedian and all the median branches terminated broadly in orange, and rather indistinctly marked in same colour for short distance up; fringe white, intersected with black at termination of nervules, mostly so towards anal angle.

UNDERSIDE: same as in male, except that orange markings in secondaries are less developed.

Thorax in both sexes black; abdomen pale brown on upperside, light brown on underside.

Expanse 1" 4'''.

Hab.—Brisbane, Queensland.

Coll. Miskin.

In form this species is nearest to *H. ignita* (Leach), but is a much more homely-looking insect.

Genus *Ialmenus*, Hübner.

Ialmenus Eubulus, n. sp.

UPPERSIDE: pearly white, with slightly opalescent hues. *Primaries*: with costa, apex and outer margin widely dark brown; small black transverse line at termination of cell. *Secondaries*: with the veins brown; outer margin narrowly bordered with brown, gradually decreasing to apex; a submarginal line of white from apical to anal angle; second and third median branches terminating in well developed tails; the first median and submedian forming points but not extended; between the two tails a large crescent of orange surmounting black border, and in the angle a patch of orange; between the orange patches black crowned with white, and above all a faint margin of brown.

UNDERSIDE: greyish-white. *Primaries*: with outer edge of wing dark brown; a marginal band of pale brown or fawn colour; an inner line of faint brown; a transverse interrupted streak of dark brown; three short discal streaks within cell. *Secondaries*: with edge, band, and transverse streak, as in primaries, the latter being elbowed twice, opposite the tails; a dark speck near base; a short dark streak in cell, one near costa, a longer one at termination of cell; orange spots as on upper side, but rather larger.

Thorax and abdomen: upperside dark grey; underside light grey.

Expanse 1" 11".

Hab.—Rockhampton, Queensland.

Coll. Miskin.